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PATENT APPLICATION
ATTORNEY DOCKET NO. 200300641-1

REPLY BRIEF dated April 23, 2010

Appl. No. : 10/807,949
Appellant : Tong Zhang
Filed : March 24, 2004
TC/A.U. : 2600/2624
Examiner : Sathyanaraya V Perungavoor

Confirmation No. 4075

Docket No. : 200300641-1
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Title : Intelligent Key-Frame Extraction
from a Video

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APPELLANT'S REPLY BRIEF

Sir:

This is a reply to the Supplemental Examiner's Answer dated March 23, 2010, which the Examiner indicated was different from the Examiner's Answer dated February 23, 2010 only in changes made to headings. Appellant's Brief on Appeal
5 (hereinafter the "Appeal Brief") was filed on November 5, 2009.

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TABLE OF AUTHORITIES

	A1.	<i>Graham v. John Deere Co.</i> , 383 U.S. 1, 148 USPQ 459 (1966)
		pages 7 and 10.
15	A2.	<i>KSR Int'l Co. v. Teleflex Inc.</i> , 127 S.Ct. 1727, 1741 (2007)
		pages 7 and 11.
	A3.	MPEP §2142, <i>Establishing a Prima Facie Case of Obviousness</i>
		pages 7 and 11.
20	A4.	<i>In re Royka</i> , 490 F.2d 981, 985 (CCPA 1974)
		pages 8 and 12.

STATUS OF CLAIMS

Claims 23-48 (appealed).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds of rejection, which represent all of the grounds of rejection, were presented for review on appeal:

Ground 1: Rejection of Claims 23, 25, 26, 28-33, 36, 38, 39 and 41-46
5 under 35 U.S.C. 102(e) as being anticipated by Toklu et al., U.S. Patent No. 20
6,549,643 B1 (hereinafter ‘TOKLU ET AL.’).

Ground 2: Rejection of Claims 24, 27, 34, 37, 40 and 47 under 35 U.S.C.
103(a) as being unpatentable over Toklu et al. in view of Wu et al., U.S Patent
Application Publication No. 2003/0068087 A1 (hereinafter ‘Wu et al.’).

10 **Ground 3:** Rejection of Claims 35 and 48 under 35 U.S.C. 103(a) as being
unpatentable over Toklu et al. in view of Dimitrova et al., U.S. Patent No.
6,125,229 (hereinafter ‘Dimitrova et al.’).

ARGUMENT

Statement of Facts:

On page 9, line 12, in section *(9) Statement of Facts*, the Examiner contends, “Statement of facts contained the brief is correct.”

5 *The response is*, given that the Examiner confirms that the facts are correct, there is a general lack of factual support in the written record for the Examiner’s rejections that are the subject of Grounds 1, 2 and 3.

Ground 1:

On page 9, line 16 through page 10, line 5 ((10) Argument), the Examiner
10 contends that “Regarding claims 23 and 36 appellant argues that Toklu does not teach,” five points enumerated as “a.” through “e.”

The response is, in addition to the five points enumerated by the Examiner that are supported by the Statement of Facts section of the Appeal Brief, page 6, line 3 through page 10, line 20, Appellant also argued that key frames grouped
15 according to segments are not clusters as defined and claimed by Appellant and that Toklu et al. do not disclose selecting *only* one key-frame (see Appeal Brief, page 22, line 3 through page 23, line 5).

On Page 11, line 3 through page 13, line 11, the Examiner provides responses to Appellant’s arguments in the Appeal Brief regarding Ground 1.

20 *The response is*, the Examiner’s responses all represent circular reasoning that respectfully ignores the facts and arguments presented by Appellant. In each

and every instance, the Examiner's response to Appellant's various particular arguments is to contend that "Toklu does teach" the claimed subject matter "*because*" the respective claimed subject matter is taught by Toklu et al. For example, regarding Claims 23 and 36, item "e." the Examiner contended, "Toklu
5 does teach: e. 'performing in parallel a set of different analyses on each video frame in the video' because each frame analyzers [*sic*] (*i.e.* 15, 16, 17) performs a different analysis in parallel. *See* fig. 1; col. 5, 1. 61-col. 6, 1.7." Other than citing various sections and figures in Toklu et al. (which have been previously cited in the Final Office Action), the Examiner makes no attempt to support the circular
10 reasoning behind the contention that Toklu et al. do teach the claimed subject matter. Furthermore, the Examiner does not acknowledge that the facts presented by Appellant in the Appeal Brief differ markedly from those upon which the Examiner apparently relies. Moreover, the Examiner does not attempt to address any of Appellant's arguments except to contend that Toklu et al. do disclose that
15 which Appellant submits is not disclosed, and in many instances, respectfully cannot be disclosed.

Appellant has presented in the Appeal Brief compelling arguments supported by facts in each instance to show that, in fact, Toklu et al. do not teach that which the Examiner contends. The Examiner's response is respectfully and
20 simply unsupported by the facts of record. Appellant respectfully refers the Board

to the aforementioned statement of facts and arguments related to Ground 1 that are presented in the Appeal Brief.

Ground 2:

At page 13, line 13 through line 18, the Examiner summarized Appellant's arguments regarding Ground 2 as consisting of only an argument "that there is no motivation to combine."

The response is, Appellant's arguments regarding Ground 2 were in fact that:

The Examiner erred in performing the *Graham* factual inquires (*Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)) and further that the Examiner has not presented and properly supported a finding of obviousness with respect to the rejected claims. (Appeal Brief, page 26, lines 3-6).

Specifically, Appellant actually argued that the Examiner provided no indication in the written record that the *Graham* factual inquires had been made and failed to provide evidence to establish that it would have been obvious to the skilled artisan at the time of the invention to combine the references in the manner proposed by the Examiner in support of a finding of *prima facie* obviousness. See for example, Appeal Brief, page 26, line 2 through page 31, line 7. The Examiner respectfully still has not provided an explicit analysis supporting the rejection under 35 U.S.C. 103 as is required (e.g., See MPEP §2142, *Establishing a Prima Facie Case of Obviousness*, as well as *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741(2007)). Appellant also argued that the Examiner's combination of

Toklu et al. and Wu et al. appeared to be nothing more than simply using Appellant's invention as a template for impermissible hindsight reconstruction of Appellant's claims because the Examiner's rationale lacked any suggestion of reasoned explanation and solid evidence to indicate that hindsight bias was at play.

5 Furthermore and notwithstanding the above, Appellant also argued in the Appeal Brief at page 31, line 8 through page 32, line 5 (with reference to the *Statement of Facts* section of the Appeal Brief) that the combination of Toklu et al. and Wu et al. failed to disclose and suggest all of the claim limitations of the subject claims and that this failure alone effectively defeated the *prima facie* case
10 of obviousness with respect to the rejection in Ground 2 of Claims 24, 27, 34, 37, 40 and 47. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974). The Examiner failed to respond to this argument or to the support to this argument provided by Appellant's presentation of the facts that the Examiner acknowledged to be correct.

 At page 13, lines 15-16, the Examiner specifically contended that Appellant
15 had argued with respect to a motivation to combine that "[t]here would be no reduction in image processing by including audio analysis of Wu because no face detection is performed." On page 14, lines 4-7, the Examiner responded to Appellant's alleged argument that a reduction in image processing would occur according to Wu et al. "because frames with silence or noise would not be

processed” and “[b]y eliminating those [unprocessed] frames from processing, computational load is reduced. *See* Wu at Para 0027”

The response is, the use by Wu et al. of video screening for frames associated with human voice sounds is exclusively and specifically directed at
5 reducing processing time associated with a “face-detection-analyzing algorithm 503.” *See* Wu et al., paragraph [0026]. As such, processing time is *only* reduced according to Wu et al. in a situation where face recognition is being performed. Toklu et al. do not disclose face detection so adding a video screening for frames associated with human voice sounds as disclosed by Wu et al. would not reduce
10 processing in the key frame extraction system of Toklu et al. The Examiner’s response is respectfully without merit.

At page 13, lines 17 and 18, the Examiner further contended that Appellant had argued, “[h]uman faces are not most important to users of video content.” In response at page 14, line 8, the Examiner merely stated, “[h]uman faces are most
15 important to users of video content,” citing Wu et al. at paragraph [0005].

The response is, while human faces may be important in some instances, there is respectfully no support in the combined references to contend that human faces are the most important video content in all cases, as the Examiner apparently does. Certainly Toklu et al. do not find human faces to be important as there is no
20 mention of “human faces” or any equivalent thereof in Toklu et al. Moreover,

whether or not human faces are “the most important video content” is respectfully irrelevant with respect to why a skilled artisan would combined the Wu et al. with Toklu et al. to render the subject claims obvious. In fact, the lack of concern on the part of Toklu et al. for face detection tends to teach away from such a combination. For additional discussion see the Appeal Brief, page 29, line 9 through page 30, line 7.

Ground 3:

At page 14, lines 10-12, the Examiner summarized Appellant’s arguments with respect to Ground 3 as being “that there was no reasoning to combine because the Examiner’s reasoning of taking into account user’s desire is conclusory.” At page 14, lines 14-16, the Examiner responded to the Appellant’s alleged argument by contending, “utilizing a user input would predictably result in an improved system by taking into account a user’s desire.”

The response is, as with Ground 2, Appellant’s arguments regarding

Ground 3 were in fact that:

The Examiner erred in performing the Graham factual inquires (*Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966)) and further that the Examiner has not presented and properly supported a finding of obviousness with respect to the rejected claims. (Appeal Brief, page 32, lines 13-19).

Specifically, Appellant actually argued that the Examiner provided no indication in the written record that the Graham factual inquires had been made and failed to provide evidence to establish that it would have been obvious to the skilled artisan

at the time of the invention to combine the references in the manner proposed by the Examiner in support of a finding of *prima facie* obviousness. See for example, Appeal Brief, page 33, line 1 through page 33, line 18. The Examiner has respectfully still not provided an explicit analysis supporting the rejection under 35 U.S.C. 103, as is required (e.g., See MPEP §2142, cited *supra*, as well as *KSR Int'l Co. v. Teleflex Inc.*, cited *supra*).

Appellant also argued that the Examiner's rationale was conclusory, relying solely as it did on a "user's desire." While taking into account a user's desire may predictably result in an improved system, as the Examiner has contended, this does not provide, in and of itself, a reason that a skilled artisan would seek to combine elements from the disclosure of Dimitrova et al. with the system of Toklu et al., as proposed by the Examiner. In fact, the only reason within the written record that seems to exist for such a combination is that Dimitrova et al. may be able to provide an element or limitation of the subject claims that was admittedly lacking in Toklu et al. Again, this respectfully appears as nothing more than impermissible use of Appellant's invention as a template for hindsight reconstruction.

Furthermore and notwithstanding the above, Appellant also argued in the Appeal Brief at page 34, line 12 through page 35, line 9 (with reference to the *Statement of Facts* section of the Appeal Brief) that the combination of Toklu et al. and Dimitrova et al. failed to disclose and suggest all of the claim limitations of the

subject claims and that this failure alone effectively defeated the *prima facie* case of obviousness with respect to the rejection in Ground 3 of Claims 35 and 48. *In re Royka*, cited *supra*. In the Supplemental Examiner's Answer, the Examiner failed to respond to this argument or to the support provided to this argument by Appellant's presentation of the facts that the Examiner acknowledged to be correct.

Appellant refers the Board to the Appeal Brief in addressing any arguments in the Examiner's Answer that are not specifically addressed herein. For the reasons given in this Reply Brief and in the Appeal Brief, reversal of the Examiner's rejection is requested.

Respectfully submitted,
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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office via EFS-Web on the date shown below.

/J. Michael Johnson/
J. Michael Johnson

April 23, 2010
Date

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